

NEW SPECIES OF *CUMMINGSLIA* FERRIS (MALLOPHAGA:
TRIMENOPONIDAE) FROM PERU AND VENEZUELA

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Abstract.—Descriptions and illustrations are given for two new species of *Cummingsia*: *C. barkleyae* off a probable new species of *Thomasomys* Coues from Peru and *C. gardneri* off *Marmosa impavida* (Tschudi) from Venezuela.

In a recent review of the mallophagan genus *Cummingsia* Ferris (Trimenoponidae), Timm and Price (1985) recognized a total of six species, with five of these in the nominate subgenus and the sixth in the subgenus *Acanthomenopon* Harrison. We have recently obtained two series of *Cummingsia*, each representing a new species; it is our intent here to describe and illustrate these new species.

For brevity, the generic and subgeneric characters are as given by Timm and Price (1985) and will not be repeated here. All measurements are in millimeters.

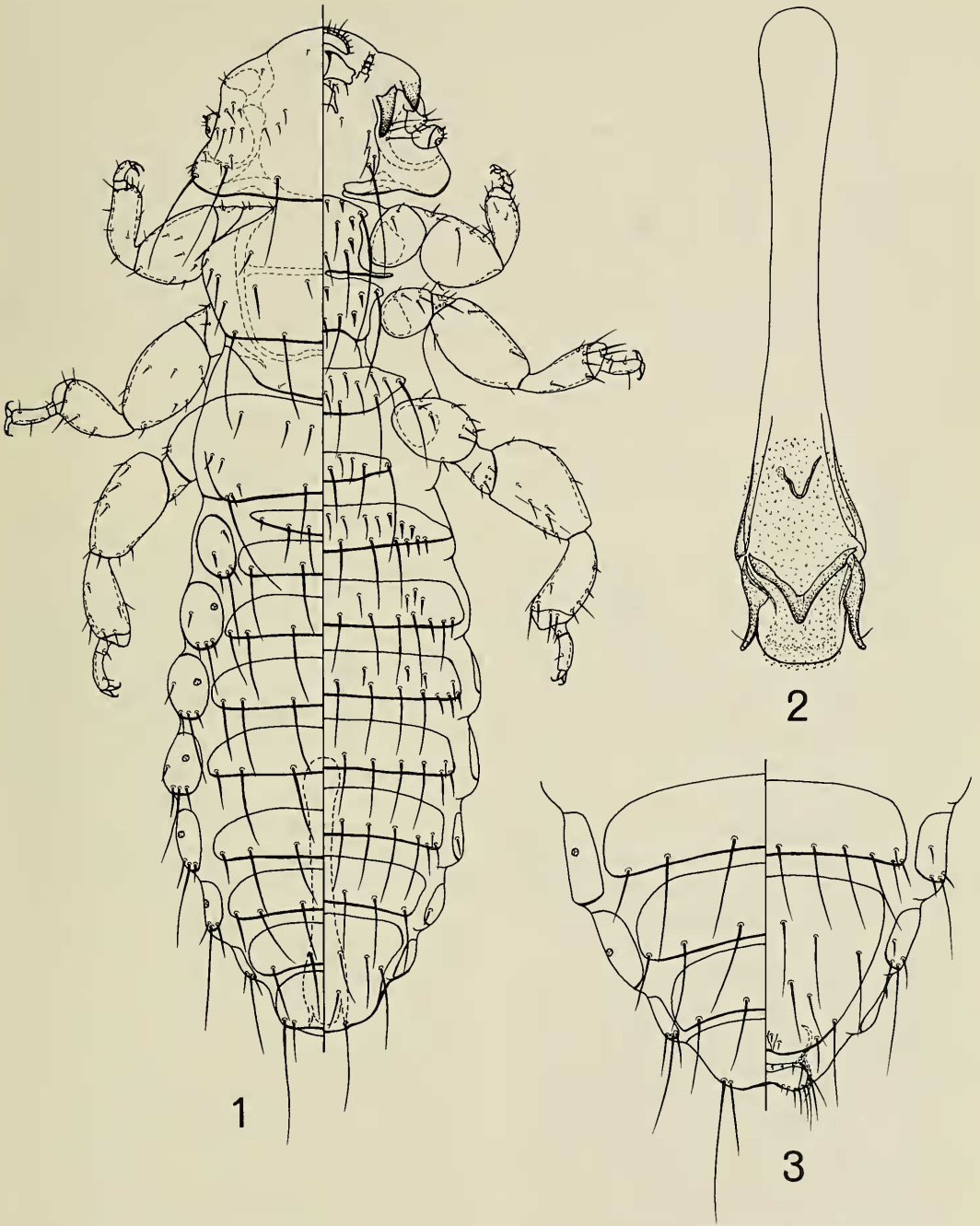
Cummingsia (*Cummingsia*) *barkleyae*,
new species
Figs. 1-3

Type host.—*Thomasomys* species, probably new [Rodentia: Cricetidae].

Male.—As in Fig. 1. Dorsal head chaetotaxy as shown, without any heavier spiniform setae. Both ventral spinous head processes on each side blunt, close together. With well-developed heavily pigmented carina across posterior head margin and lacking medioposterior protrusion. Pronotum with median setae only slightly shorter than pair of lateral setae on each side near end of transverse thickening; metanotum with anterior setae all of essentially similar size. Prosternal plate with 7 long, 7 short stout setae; mesosternal plate with 5 long, 5 short stout setae; metasternal plate with 16-21 short to long setae. Tergal setae: I, 6 (with

outermost very short, other 4 subequally long); II, 4-5; III-VII, 6; VIII, 4; IX, 1 very long, 1 medium on each side. Pleura II-VIII each with 3 marginal setae, with middle seta much longer than those adjacent to it. Anterior pleural setae on II, 2; III, 0-1; IV, 1-2; V-VI, 1; VII, 0-1; VIII, 0. Marginal sternal setae: I, 9-11; II, 24-27; III, 21-25; IV, 15-21; V, 12-15; VI, 11-12; VII, 6. Anterior sternal setae: I, 4-6; II, 13-16; III, 5-11; IV, 1-7; V, 0-1; VI-VII, 0. Subgenital plate (fused VIII-IX) with 10 setae. Dimensions: preocular width (POW), 0.27-0.30; temple width (TW), 0.34-0.38; head length (HL), 0.23-0.25; prothorax width (PW), 0.31-0.34; metathorax width (MW), 0.38-0.42; abdomen width at segment V (AW), 0.43-0.47; total length (TL), 1.27-1.41. Genitalia as in Fig. 2, with genital plate broadly tapered, with sac sclerite thin, "U"-to "V"-shaped, and with tip of paramere with subapical seta well removed from end; genitalia width (GW), 0.07-0.08; genital plate width (GPW), 0.05-0.06; genital plate length (GPL), 0.04-0.05.

Female.—Much as for male, except as follows. Prosternal plate with 7-9 short stout setae; mesosternal plate with 4-5 long setae. Anterior pleural setae: II, 2-3; III, 1-2; VIII, 0-1. Marginal sternal setae: I, 10-13; II, 27-31; III, 22-27; IV, 19-23; V, 14-18; VI, 13-15; VII (fused with VIII), 6-7. Anterior sternal setae: II, 15-19; III, 7-13; IV, 5-9; V, 1-4; VI, 1-2. Terminalia as in Fig. 3. Subgenital plate (fused VIII-IX) with 11-12 setae, including 4 minute medioposterior



Figs. 1-3. *Cummingsia barkleyae*: 1, Dorsal-ventral male; 2, Male genitalia; 3, Dorsal-ventral female terminalia.

setae. Anus oval, with 26–29 minute to medium setae. Dimensions: POW, 0.29–0.32; TW, 0.39–0.42; PW, 0.35–0.39; MW, 0.46–0.49; AW, 0.57–0.65; TL, 1.62–1.70.

Remarks.—By having no abdominal tergites with more than six setae, *C. barkleyae* is allied with *C. albuja* Timm and Price and would be identified with the latter in couplet 2 of the key provided by Timm and Price (1985). However, *C. barkleyae* may be readily distinguished by its having (1) no dorsal head spiniform setae, (2) only four to five setae on tergite II, (3) consistently more marginal sternal setae on II–VI, with ranges well separated especially on II–IV, (4) more anterior sternal setae on II–IV, and (5) all abdominal pleurites with three marginal setae, instead of only two on most pleurites of *C. albuja*.

The chaetotaxy of the abdominal pleurites and dorsal thorax is similar for *C. barkleyae*, *C. inopinata* Mendez (the only other species known from *Thomasomys*), and *C. perezi* Timm and Price. Both *C. inopinata* and *C. perezi* have more than six setae on at least five abdominal tergites; *C. inopinata* has distinctly fewer metasternal setae and marginal and anterior sternal setae on II–III; and *C. perezi* has distinctively different dorsal head and female subgenital plate chaetotaxy, as well as being larger in most widths and the male genitalia dimensions.

Etymology.—This new species is named in honor of Linda J. Barkley, Los Angeles County Museum of Natural History, in recognition of her interest in ectoparasites and for collecting the hosts bearing these lice.

Holotype.—Adult ♂, ex *Thomasomys* species, probably new, Peru, Dpto. Huanuco, Unchog, NNW Acomayo, 3450 m, 3 Aug 1984, coll. L. J. Barkley (LJB field catalog number 2438); in collection of U.S. National Museum of Natural History.

Paratypes.—Ex *Thomasomys* species, probably new: 34 ♂♂, 46 ♀♀, same locality and collector data as holotype, 18 Jul–5 Aug 1984 (off 17 host individuals with the fol-

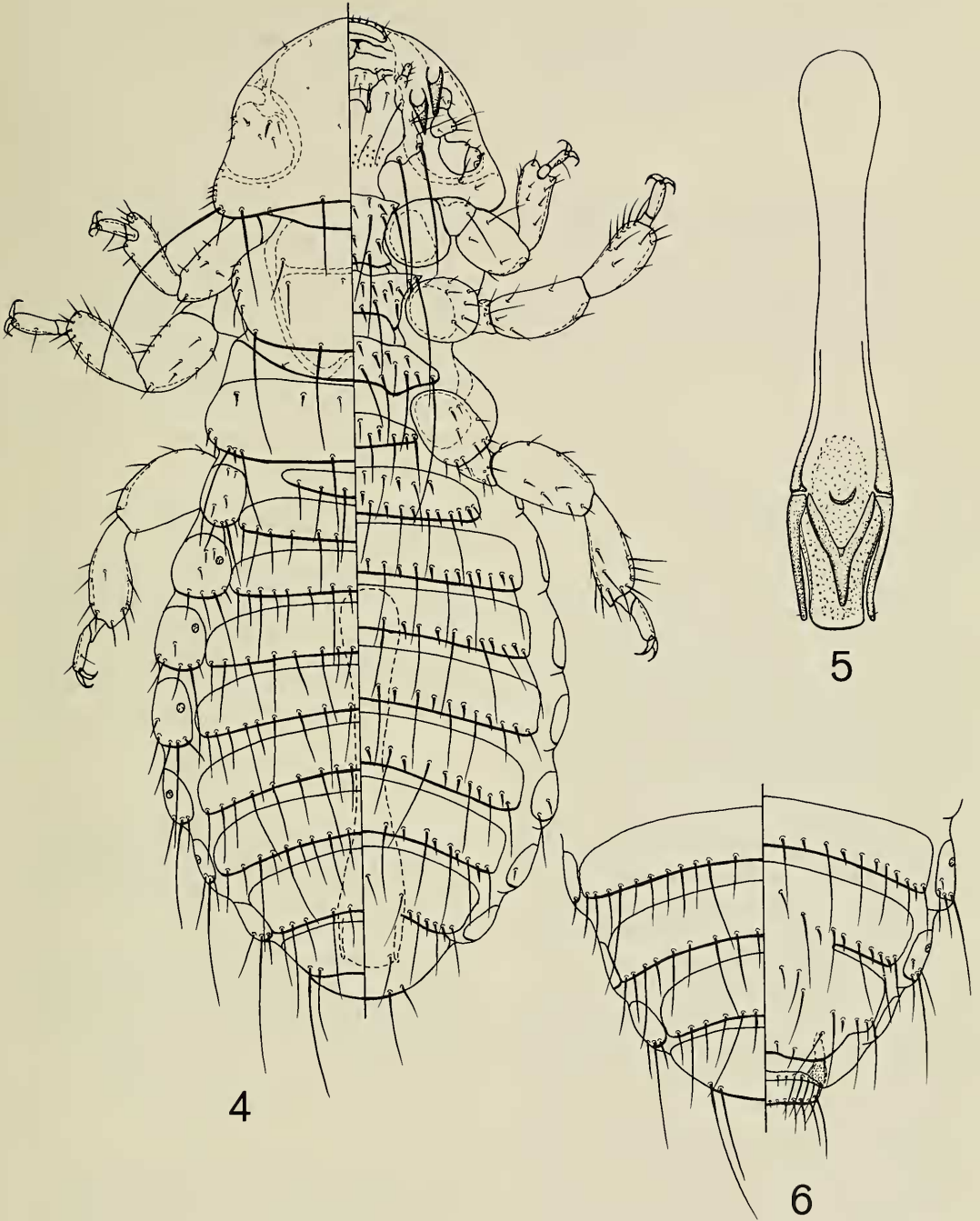
lowing LJB field catalog numbers: 2340, 2341, 2342, 2366, 2376, 2389, 2390, 2391, 2412, 2426, 2432, 2434, 2438, 2439, 2440, 2443, 2449). Paratypes will be distributed among the University of Minnesota, Oklahoma State University, U.S. National Museum of Natural History, and Field Museum of Natural History. Note: Linda J. Barkley informs us that the host is most likely an undescribed species, which will ultimately be described when her studies of the genus *Thomasomys* in Peru are completed.

Cummingsia (Acanthomenopon) gardneri,
new species

Figs. 4–6

Type host.—*Marmosa impavida* (Tschudi) [Marsupialia: Didelphidae].

Male.—As in Fig. 4. Dorsal head chaetotaxy as shown. Slender pointed ventral inner spinous head process well separated from outer. With reduced carina across posterior head margin and with medioposterior protrusion. Pronotum with median setae very short and fine, with much longer pair of setae on each side near end of transverse thickening; metanotum with anterior setae all of similar length. Prosternal plate with 6 long, 12–15 short stout setae; mesosternal plate with 4 long, 13–15 short stout setae; metasternal plate with 21–22 short to long setae. Tergal setae: I, 6 (shortest outermost, longest innermost); II, 12–14; III, 16–17; IV, 15–19; V–VII, 17–19; VIII, 10; IX, 1 very long, 1 medium on each side. Pleura II and VI each with 4 marginal setae; III–V with 4–5; VII–VIII with 3; all with 1 long among much shorter setae. Anterior pleural setae on II–III, 1–4; IV, 1–2; V–VI, 0–1; VII, 1; VIII, 0. Marginal sternal setae: I, 12–13; II, 29–32; III–VI, 22–24; VII, 18–19. Anterior sternal setae: I, 3; II, 11–12; III–VII, 0. Subgenital plate with 20–21 setae. Dimensions: POW, 0.27–0.28; TW, 0.34–0.37; HL, 0.19–0.22; PW, 0.29–0.32; MW, 0.33–0.34; AW, 0.46–0.49; TL, 1.14–1.17.



Figs. 4-6. *Cummingsia gardneri*: 4, Dorsal-ventral male; 5, Male genitalia; 6, Dorsal-ventral female terminalia.

Genitalia as in Fig. 5, with genital plate elongated, with small semicircular sac sclerite, and with straight to slightly curved parameres each bearing minute seta near tip; GW, 0.07–0.08; GPW, 0.05; GPL, 0.07–0.08.

Female.—Much as for male, except as follows. Metasternal plate with 21–24 setae. Tergal setae: I, 8–9; II, 14–16; III, 16–18; IV, 19–20; V, 21–23; VI, 20–22; VII, 16–21; VIII, 12. Pleura III–V each with 5 marginal setae. Anterior pleural setae on II–III, 3–5; V–VI, 1. Marginal sternal setae: I, 13–14; II, 31–34; III–VI, 22–26; VII, 20–22. Anterior sternal setae: I, 4–5; II, 12–14; III, 0–1; IV–VI, 0; VII, 0–2. Terminalia as in Fig. 6. Anus with 25–29 minute to medium setae. Dimensions: POW, 0.28–0.29; PW, 0.31–0.33; MW, 0.37–0.40; AW, 0.52–0.54; TL, 1.25–1.29.

Remarks.—Since the subgenus *Acanthomenopon* contains only a single previously-described species, *C. peramydis* Ferris, *C. gardneri* resembles it and keys to it in couplet 1 in Timm and Price (1985), thereby differing grossly from all members of the subgenus *Cummingsia*. The distinguishing features for *C. gardneri* are (1) the consistently smaller size of the female in all dimensions and the male in POW, HL, AW, and TL, (2) the female with more tergal setae on I–III, and (3) the male genitalia smaller in all dimensions, with paramere tips not pronouncedly outwardly curved.

Etymology.—This new species is named in honor of A. L. Gardner, U.S. National Museum of Natural History, in recognition

of his interest in ectoparasites and his participation in the collection of the hosts bearing these lice.

Holotype.—Adult ♂, ex *Marmosa impavida* (Tschudi), Venezuela, T. F. Amazonia, Cerro de la Nebina, 4 Feb 1985, coll. A. L. Gardner and P. J. Spangler (ALG field catalog number 14418); in collection of the U.S. National Museum of Natural History.

Paratypes.—Ex *M. impavida*: 6 ♂♂, 8 ♀♀, same locality and collector data as holotype, 3–4 Feb 1985 (off 2 hosts with the following ALG field catalog numbers: 14410, 14418). Paratypes will be distributed among the University of Minnesota, Oklahoma State University, and U.S. National Museum of Natural History.

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